

Kennebec Valley Technical College
Kennebec County
Fairfield, Maine
A-865-71-A-N

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Departmental
Findings of Fact and Order
Air Emission License

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Kennebec Valley Technical College, located in Fairfield, Maine has applied for an Air emission License, permitting the operation of emission sources associated with their Fairfield, Maine educational facility.

B. Emission Equipment

Kennebec Valley Technical College is applying to operate the following equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #1	3.8	27.0	#2 fuel oil, 0.35%	1
Boiler #2	1.5	10.9	#2 fuel oil, 0.35%	2
Boiler #3	4.0	28.45	#2 fuel oil, 0.35%	3
Boiler #4	1.1	7.9	#2 fuel oil, 0.35%	4

C. Application Classification

Kennebec Valley Technical College is classified as an existing source that is applying for it's first air emission license. The Department has determined the facility is a minor source and the application has been processed through Chapter 115 of the Department's regulations.

II. BEST PRACTICAL TREATMENT

A. Introduction

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boilers #1, #2, #3 and #4

Kennebec Valley Technical College makes use of four boilers for facility heating and hot water, all of which fire #2 fuel oil. The boilers, designated Boilers #1, #2, #3 and #4, have rated heat input capacities of 3.8 million British Thermal Units per hour (MMBtu/hr), 1.5 MMBtu/hr, 4.0 MMBtu/hr and 1.1 MMBtu/hr respectively. This gives the facility a total combined maximum design heat input capacity of 10.4 MMBtu/hr.

Kennebec Valley Technical College also makes use of a small #2 fuel oil fired boiler with a maximum heat input capacity of 0.3 MMBtu/hr and a hot water heater with a maximum heat input capacity of 0.2 MMBtu/hr. The small boiler and the hot water heater are below the 1.0 MMBtu/hr threshold for being considered significant activities, therefore, the emissions resulting from the operations of the small boiler and the hot water heater will not be considered in determining total facility PTE (potential to emit) and the two units are mentioned in this license for inventory purposes only.

BACT for the boiler units shall be a total annual facility fuel use limit of 75,000 gallons of #2 fuel oil at 0.35% sulfur by weight based on a 12 month rolling total. In order to demonstrate compliance with the fuel oil limit and the sulfur content restriction, Kennebec Valley Technical College shall maintain a record of fuel usage. The record shall include fuel receipts from the supplier showing the dates of fuel delivery, the quantity of fuel delivered and the percent sulfur of the fuel. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total.

A summary of the BACT analysis for Boilers #1 and #2 is as follows

1. BACT for #2 fuel oil for PM/PM₁₀ is 0.08 lb/MMBtu.
2. BACT for #2 fuel oil is a sulfur content of 0.35% by weight.
3. NO_x emission limits are based on data from similar #2 fired boilers of this size and age.
4. CO and VOC emission limits are based upon AP-42 data dated 9/98.

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5. Visible emissions from the boilers are subject to Chapter 101 of the Air Regulations:

Visible emissions from each stack shall not exceed 20% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

C. Annual Emission Restrictions

Kennebec Valley Technical College shall be restricted to the following annual emissions, based on a 12-month rolling total.

- Total annual fuel use for all boilers based on a 12-month rolling total shall not exceed 75,000 gallons of #2 fuel oil at a sulfur content of 0.35% by weight.

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/Year</u>
PM	0.4
PM ₁₀	0.4
SO ₂	2.0
NO _x	2.6
CO	0.2
VOC	0.01

III. AMBIENT AIR QUALITY ANALYSIS

According to Department Regulations Chapter 115, the level of air quality analyses required for a minor source shall be determined on a case-by case basis.

Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-865-71-A-N subject to the following conditions:

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.

- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

- (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

- (16) Boilers #1, #2, #3 and #4
- A. Total fuel use for all boilers based on a 12 month rolling total shall not exceed 75,000 gals/yr of #2 fuel oil with a maximum sulfur content of 0.35% by weight. Compliance shall be based on fuel usage records, which shall include fuel receipts from the supplier indicating the dates of fuel delivery, the quantity of fuel delivered and the percent sulfur of the fuel. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total.

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B. Emissions shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boiler #1	lb/MMBtu	0.08	-	-	-	-	-
	lb/hr	0.3	0.3	1.4	1.9	0.1	0.01
Boiler #2	lb/hr	0.1	0.1	0.5	0.8	0.05	0.01
Boiler #3	lb/MMBtu	0.08	-	-	-	-	-
	lb/hr	0.3	0.3	1.4	2.0	0.1	0.01
Boiler #4	lb/hr	0.1	0.1	0.4	0.6	0.04	0.01

C. Visible emissions.

Visible emissions from each stack shall not exceed 20% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

- (17) Kennebec Valley Technical College shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).
- (18) Kennebec Valley Technical College shall pay the annual air emission license fee within 30 days of June 30 of each year. Pursuant to 38 MRSA 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for the revocation of the license under 38 MRSA 341-D, Subsection 3.
- (19) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: **April 25, 2003**

Date of application acceptance: **April 25, 2003**

Date filed with the Board of Environmental Protection: _____

This Order prepared by Peter G. Carleton, Bureau of Air Quality